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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,088	10/10/2001	Frederick Allan Hall	3265-011733	7688

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Russell D. Orkin
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EXAMINER

BRITTAIN, JAMES R

ART UNIT PAPER NUMBER

3677

DATE MAILED: 04/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/975,088

Applicant(s)

HALL, FREDERICK ALLAN

Examiner

James R. Brittain

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Request for Continued Examination

A request for continued examination under 37 CFR 1.114 including the fee set forth in 37 CFR 1.17(e) was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17 (e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 17, 2004 has been entered.

Allowable Subject Matter

The indicated allowability of claim 2 is withdrawn in view of the newly discovered reference(s) to Hagemann (DE 29610293). Rejections based on the newly cited reference(s) follow.

Specification Objections

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.175(d)(1) and MPEP §608.01(o). Correction of the following is required: The description that the barrel having a region of greater thickness that "surrounds the free end of the body through an angle of at least 25 degrees" (claim 1, lines 9-10) lacks antecedent basis in the specification as does the range of "about 25 degrees to about 130 degrees" (claim 13, lines 2-3) and the value "about 130 degrees" (claim 14, line 2).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-10, 13 and 14 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The application as filed only shows and describes the area of greater thickness or strength as extending outwardly when the gate is in a closed position. The description that the barrel having a region of greater thickness that "surrounds the free end of the body through an angle of at least 25 degrees" (claim 1, lines 9-10) lacks antecedent basis in the application as filed. There is no basis for this range. Applicant shows in the figures only a single embodiment and the specification as filed is completely mute on any angle range for the region of greater thickness. Applicant has no basis for now claiming that the region of thickness subtends an angle of "at least 25 degrees". The figures only show one embodiment, so there is no range shown at all, only the angle subtended by the region of thickness for this particular embodiment. There is no basis for the beginning value of the range being 25 degrees any more than choosing 24 degrees, 26 degrees or 30 degrees, etc. Similarly, the subtended angle being between "about 25 degrees" and "about 130 degrees" (claim 13) lacks antecedent basis in the application as filed. Again, there is no description in the written specification as filed for this range and the figures only show a single embodiment, so the range is not shown in the drawings either. In regard to claim 14, the subtended angle being "about 130 degrees" lacks antecedent basis in the specification as filed and the figures don't show a view to distinguish the angle subtended by the region of greater thickness as being 130 degrees. Applicant has shown no basis

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to choose this value over 125 degrees, 127 degrees, 132 degrees or 135 degrees. The remaining claims are rejected because they depend from claims that incorporate new matter.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2 and 5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hagemann (DE 29610293).

Hagemann (figures 1, 4) teaches carabiner structure including a body 1 that is generally C-shaped with its free ends curved toward each other and forming a gap therebetween, and a gate 4 on one end of the body for closing the gap, the gate having a locking barrel 16, 22 thereon, the barrel portion 22 having a greater thickness 23 on the face of the barrel that is outermost when it is in the position of locking the gate in a closed position. The region of greater thickness 23 extends completely around the barrel and therefore meets the limitation that the region of thickness subtends an angle of at least 25 degrees. The barrel is both slid and rotated to lock and unlock the gate.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 5 and 10 are rejected under 35 U.S.C. §103(a) as being unpatentable over Akeroyd (GB 2077838) in view of Vala (US 1388494).

Akeroyd (figures 1-4) teaches carabiner structure including a body 10 that is generally C-shaped, even with the eyelet portion 11, with its free ends curved toward each other and forming a gap therebetween, and a gate on one end of the body for closing the gap, the gate having a locking barrel 14 thereon, the barrel 14 having a greater thickness 15 on the face of the barrel that is outermost when it is in the position of locking the gate in a closed position. The barrel is rotated to lock and unlock the gate.

The difference is that while the barrel has greater thickness extending outwardly so as to enhance the strength against an inward force, the subtended angle is not greater than 25 degrees. However, Vala (figure 1) shows a similar hook structure and that for the closed and locked configuration of figure 1, the barrel 7 has a region of thickness completely around the barrel as compared to the other end of the barrel that is of reduced outer dimension so as to enhance the barrel strength against inward pressure.

The region of greater thickness provides greater strength to the barrel to both inward and sideward pressure combined with material savings by having the thinner tapered region at the other end of the barrel. Applicant is reminded that "[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom." In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968). Since locking strength is of importance to the safety of a climber, it would have been obvious to modify the carabiner of Akeroyd so as to enhance its strength against sideward pressure as taught by Vala by increasing

the sideward thickness and hence its strength. As to claim 3, it would have been obvious to modify the rotation of the barrel of Akeroyd so that the barrel is screw-threaded in view of Vala suggesting that the use of a screw-threaded barrel is desirable because of the added security required by the multiple turns of the barrel to open or close the gate. In regard to claim 10, the gate 12 of Akeroyd is considered to be in the shape of a wire since wire can have many configurations.

Claim 4 is rejected under 35 U.S.C. §103(a) as being unpatentable over Akeroyd (GB 2077838) in view of Vala (US 1388494) as applied to claim 1 above, and further in view of Bonaiti (EP 318742).

Further modification of the carabiner of Akeroyd such that a double locking or triple locking barrel is utilized would have been obvious in view of Bonaiti (figures 1-4) teaching that it is desirable to provide a carabiner with the added security of a double locking barrel 19, 14 thereby providing greater safety for climbers.

Claims 6-8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Akeroyd (GB 2077838) in view of Vala (US 1388494) as applied to claim 1 above, and further in view of Brainerd et al. (US 5878834).

Further modification of the carabiner of Akeroyd such that material of the barrel is carbon steel, aluminum or stainless steel or has the capability to withstand forces up to 25 kN would have been obvious in view of it being well known in this field of endeavor as evidenced by Brainerd et al. (figures 1-8) that high quality metals with good durability such as stainless steels, 4130 alloy steels, titanium or aluminum are needed for the gate structure (col. 4, lines 19-21). Since increased strength is a desirable characteristic for carabiners thereby providing

greater safety to a climber it would have been obvious to modify the carabiner of Akeroyd to use a barrel of adequate strength in view of Brainerd et al. teaching that durability is important in carabiner gate structure and that various metals such as stainless steels, 4130 alloy steels, titanium or aluminum are needed to provide such durability.

Claim 9 is rejected under 35 U.S.C. §103(a) as being unpatentable over Akeroyd (GB 2077838) in view of Vala (US 1388494) as applied to claim 1 above, and further in view of Nebot (WO 93/25822).

Further modification of the carabiner of Akeroyd such that the gate is clearly solid would have been obvious in view of Nebot (figures 5-8) teaching the use of a solid gate as being desirable for enhanced strength.

Response to Arguments

Applicant's arguments filed February 17, 2004 have been fully considered but they are not persuasive.

Vala and Hagemann are now relied upon to show a region of greater thickness in the barrel that extends completely around the overlapping free end of the carabiner body and thereby provides greater strength to both inward and lateral forces and Vala suggests extending the region of greater thickness shown by Akeroyd so as to have the area of greater strength extend over a greater subtended angle.

Applicant provides arguments and a declaration from Mr. Pammenter dated February 9, 2004 to address the increased subtended angle exhibited by applicant's region of greater thickness when compared to that of Akeroyd. This evidence and arguments are now addressed as indicated above by Akeroyd in view of Vala.

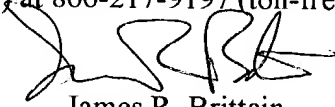
Applicant indicates "Support for the amendment to independent claim 1 can be found, for example, in the originally-filed figures in the present application" (Remarks, page 6, ¶2, lines 6-7). However, there is no figure that shows the lower bound to the range being 25 degrees or shows any range for the angle subtended by the region of greater thickness. Applicant's argument to show support for the amendment to claim 1 is unpersuasive.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Brittain whose telephone number is 703-308-2222. The examiner can normally be reached on M, W & F 5:30-1:30, T 5:30-2:00 & TH 5:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



James R. Brittain
Primary Examiner
Art Unit 3677

JRB